

Please add the following new claim:

B4 --18. (Newly Submitted) The aqueous viscoelastic treating fluid of claim 17 where the aqueous base fluid is brine.--

The claims remaining in the application are 1, 4, 6-10, and 13-14 and 16-18.

REMARKS

The Applicants would like to thank the Examiner for the very quick and courteous Office Action. The Applicants particularly appreciate the withdrawal of the rejections based upon Thompson and Blezard.

Applicants' Invention

The Applicants' invention is adequately outlined in independent claims 1, 10, and 17 as amended above.

The Examiner's attention is respectfully directed to the fact that, in addition to other changes, these claims were amended slightly to make it clear that one or more amine oxide gelling agent may be used as the only gelling agents employed. Although it is understood that the law interprets the singular to include the plural, the Applicants want to make it clear that the use of more than claimed one non-ionic amido amine oxide did not fall outside the scope of the claims.

Inadvertent Deletion

The Examiner helpfully noted that in claim 9, line 5, the word "agent" was inadvertently deleted along with "reactive".

The Applicants appreciate the Examiner pointing out this inadvertent error, and the Examiner's attention is respectfully directed to the amendments to claim 9 herein where the word --agent-- has been re-inserted.

35 U.S.C. §102 Rejection Based on WO 99/32572

The Examiner has rejected claims 1, 4, 5, 7-10, 13-15 and 17 under 35 U.S.C. 102(e), as being allegedly anticipated by WO 99/32572.

The Examiner finds that WO 99/32572 teaches viscoelastic fluids which comprise a nonionic amine oxide which are used in areas such as for drilling fluids and fracturing fluids, wherein the amine oxide is the only gelling agent, referring to Example 8. Proppants may be added. The Examiner thus contends that the present invention is thus anticipated by WO 99/32572.

The Applicants must respectfully traverse.

The Examiner's attention is respectfully directed to the amendments made herein to claims 1, 10, and 17 herein. Independent claims 1 and 10 have been amended to recite the formula (I) from claims 1 and 15, respectively, and further where the R' groups average from about 1 to 3 carbon atoms. Support for this amendment is found in the application as filed, page 3, line 21 to page 4, line 5, and thus do not constitute improper insertion of new matter. Further, independent claim 17 has been amended herein to recite that the non-ionic amine oxide gelling agent is tallow amido propylamine oxide (TAPAO), noted as particularly preferred on page 4, lines 3-4.

It is respectfully submitted that a patent claim is anticipated, and therefore invalid, only when a single prior art reference discloses each and every limitation of the claim. *Glaxo Inc. v. Novopharm Ltd.*, 52 F.3d 1043, 1047, 34 U.S.P.Q.2d 1565 (Fed. Cir.), cert denied, 116 S.Ct. 516 (1995). It is respectfully submitted that WO 99/32572 fails to do this with respect to the claims as amended. Specifically, the claims now recite that the only gelling agents employed are those of formula (I) where R' are independently alkyl groups averaging from about 1 to 3 carbon atoms. It is respectfully submitted that WO 99/32572 does not teach this limitation.

The Applicants stipulate that Example 8 of WO 99/32572 employs only tallow-amidopropyldimethylamine oxide as the only gelling agent in that Example. WO 99/32572 does not teach or suggest *in general* that their fatty aliphatic amidoamine oxides might be used as the only gelling agent in aqueous systems. It is further noted that WO 99/32572 also teaches salts of alkoxylated monoamine with an aromatic dicarbox-

ylic acid and salts of an alkyldiamine with an aromatic dicarboxylic acid as surfactant gelling agents. It is respectfully submitted that examiners are universally reluctant to draw general teachings from a single experimental example. There is nothing in WO 99/32572 from which one having *ordinary* skill in the art could draw the conclusion that all fatty aliphatic amidoamine oxides could be used as the only gelling agents in aqueous systems.

It is thus respectfully submitted that because each and every limitation of the claims has not been disclosed by the reference, the rejection must fall. That is, the amendments to the claims overcome the rejection. Reconsideration is respectfully requested.

35 U.S.C. §102 Rejection Based on Llave, et al.

The Examiner has rejected claims 1, 4, 5, 7, 8, 10, 13-15 and 17 under 35 U.S.C. 102(b), as being allegedly anticipated by U.S. Pat. No. 5,101,903 to Llave, et al.

Llave, et al. is seen by the Examiner to teach a well treating composition that comprises a nonionic amine oxide such as dimethyl tallowamine oxide, within the same concentration as the present invention (see Abstract, Tables). The Examiner asserts that such compositions would be viscoelastic in nature. The Examiner concludes by contending that the invention is anticipated by Thompson.

The Applicants must respectfully traverse.

It is respectfully submitted that a patent claim is anticipated, and therefore invalid, only when a single prior art reference discloses each and every limitation of the claim. *Glaxo Inc. v. Novopharm Ltd.*, 52 F.3d 1043, 1047, 34 U.S.P.Q.2d 1565 (Fed. Cir.), cert denied, 116 S.Ct. 516 (1995). The Examiner's attention is respectfully directed to the amendments to all of the independent claims herein where it may be seen that the surfactant gelling agents are now recited as non-ionic *amido* amine oxides. It is respectfully submitted that Llave, et al. only teach amine oxides, *e.g.* dimethyltallowamine oxide, and do not teach or suggest the use of *amido* amine oxides.

It is further respectfully submitted that despite the teachings of Llave, et al. discussed immediately above, the Examiner has provided no support for his bare assertion

that the compositions of Llave, et al. would be viscoelastic in nature. It is respectfully submitted that the reference is silent on this point. Silence in the references is not a proper substitute for a disclosure of facts adequate enough to support a conclusion of obviousness, *In re Burt*, 148 U.S.P.Q. 548, 553 (C.C.P.A. 1966). A *prima facie* case must be put forward by the Examiner; missing facts cannot be assumed, *Ex parte Woltes*, 214 U.S.P.Q. 735 (Bd. App. 1979). It is respectfully submitted that the same principle applies to rejections under 35 U.S.C. §102.

It is further noted that Llave, et al. require the presence of an alcohol, preferably isopropanol (please see the Abstract). Although Llave, et al. do not identify alcohols as gelling agents, it is respectfully submitted that since the Examiner seems to believe that viscoelastic compositions would result in Llave, et al., one having ordinary skill in the art might reasonably conclude that the alcohols serve some gelling function. It is thus respectfully submitted that Llave, et al. additionally do not teach "each and every limitation" of the claims because the claims require the non-ionic amido amine oxides to be the only gelling agents employed, whereas Llave, et al. require the presence of an alcohol, which may have some contribution to the supposed viscoelastic properties of the Llave, et al. compositions. In other words, if it is assumed that Llave, et al.'s compositions "would be viscoelastic in nature" as the Examiner does, the Applicants would respectfully submit that one having ordinary skill in the art would also assume that the alcohols are necessary since Llave, et al. teach them as required.

Because Llave, et al. has failed to disclose each and every limitation of the claims, as amended, it is respectfully submitted that the subject rejection must also fall. Again, the amendments to the claims overcome the rejection. Reconsideration is respectfully requested.

35 U.S.C. §103 Rejection Over WO 99/32572

The Examiner has rejected claims 1, 6, 10, and 16 under 35 U.S.C. 103(a), as being allegedly unpatentable over WO 99/32572 for reasons of obviousness.

The Examiner finds that WO 99/32572 teaches viscoelastic fluids that comprise a nonionic amine oxide which are used in areas such as for drilling fluids and fracturing fluids, wherein the amine oxide is the only gelling agent (Example 8). The Examiner

notes that proppants and breakers may be added. The Examiner admits that WO 99/32572 differs from the present invention in not specifically teaching the use of tallow amido propyl amine oxide as an amine oxide useful in the invention. However, the Examiner asserts that WO 99/32572 teaches the use of tallow amido dimethylamine oxide in the drilling and treating fluids (Example 8). As homologues and analogues with such similar structures, the Examiner alleges that they would be expected to have similar properties and utility, and further that it would be obvious to one of ordinary skill in the art to utilize various homologues and analogues of the amine oxides disclosed by WO 99/32572, including the tallow amido propyl amine oxide of the present invention, since such homologues and analogues would be expected to be useful in the viscoelastic well fluids of WO 99/32572.

The Applicants must respectfully traverse. It is respectfully noted that claim 17 as amended herein also recites that the non-ionic amido amine oxide surfactant is tallow amido propylamine oxide (TAPAO).

It is respectfully submitted that the Examiner has not made a *prima facie* case of obviousness of the claimed invention from WO 99/32572. As noted previously, WO 99/32572 merely contains a single example, Example 8, where tallowamidopropyldimethylamine oxide is used as the only gelling agent. However, there is no discussion or teaching in WO 99/32572 that it is desirable to use only amine oxides as the only gelling agents in aqueous fluids. One having *ordinary* skill in the art must somehow extract the Examiner's supposed interpretation or teaching from this single Example, and the Applicants would respectfully submit that this conclusion is less than obvious based on only one Example and no teaching or even implication anywhere else in WO 99/32572 specification.

It is therefore respectfully submitted that one having ordinary skill in the art, reviewing the single Example 8 and its sparse disclosure of WO 99/32572 cannot assume that amine oxides in general and TAPAO specifically would also function as the sole gelling agent for aqueous fluids. Chemistry is largely empirical and there is frequently great difficulty predicting precisely how a given compound will behave; and that although analogy is useful, organic chemistry is essentially experimental and results are

often uncertain and unpredictable. *In re Carleton*, 202 U.S.P.Q. 165, 170 (C.C.P.A. 1970).

It is additionally respectfully submitted that at best it may be "obvious to try" amine oxides other than that used in WO 99/32572's single Example 8 as the only gelling agent in aqueous fluids. However "obvious to try" is not the proper standard of obviousness".

"At best, in view of these disclosures, one skilled in the art might find it obvious to try various combinations of these known scale and corrosion prevention agents. However, this is not the standard of 35 U.S.C. §103. *In re Goodwin*, 576 F.2d 375, 377, 198 U.S.P.Q. 1, 3 (C.C.P.A. 1978); *In re Antonie*, 559 F.2d 618, 195 U.S.P.Q. 6 (C.C.P.A. 1977); *In re Tomlinson*, 363 F.2d 928, 150 U.S.P.Q. 623 (C.C.P.A. 1966)." *In re Geiger*, 815 F.2d 686, 688; 2 U.S.P.Q.2d 1276, 1278 (Fed. Cir. 1987).

Yet the Applicants must stress that the WO 99/32572 teachings *do not even reach the level of "obvious to try"* because the concept of using amine oxides as the only gelling agent is not taught.

For these reasons, it is respectfully submitted that a *prima facie* rejection of these claims under 35 U.S.C. §103 has not been made. Reconsideration is respectfully requested.

Supplemental Statement of Disclosure

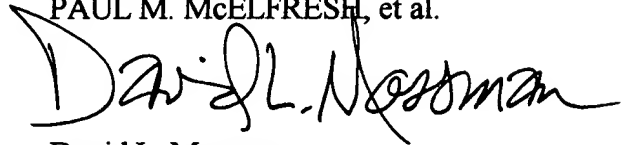
It is respectfully submitted that the art listed on the attached PTO/SB/08 (substitute for 1449A/PTO) be considered in the examination of the subject application and made of record herein. A copy of the art is enclosed herewith.

No representation is made or intended that a search has been made or that no better art than is listed is available. All of the art is in English, and thus no explanation of its relevance is required.

It is respectfully submitted that the arguments and amendments presented above overcome the instant rejections. Reconsideration of the claims is respectfully requested. The Examiner is respectfully reminded of his duty to indicate allowable subject matter.

The Examiner is invited to call the Applicants' attorney at the number below for any reason, especially any reason that may help advance the prosecution.

Respectfully submitted,
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David L. Mossman

8/2/2000
Date